the methods adopted to eradicate the sponge from the infected areas.—Prof. J. Playfair **McMurrich**: Two new species of Actinians from the coast of British Columbia. These specimens probably represented stages of a single species, and belonged to a group hitherto not recorded from the west coast of America.

Paris.

Academy of Sciences, November 24.—M. F. Guyon in the chair.—A. **Haller**: The alkylation of thujone and *iso*thujone by means of sodium amide. An account of the preparation of dimethyl-, diallyl-, and triallylthujone, and of dimethyl*iso*thujone and allyl*iso*thujone.—A. **Müntz** and H. **Gaudechon**: Contribution to the study of clays. Experiments on the sedimentation of clays under the action of gravity alone, or the combined action of gravity and an electric field.—Edmond **Perrier**: The international protection of nature. On the initiative of M. Paul Sarrasin and the Swiss Government a conference was held at Berne at which it was decided to form a permanent commission to deal with the question of the preservation of rare animals and birds.—A. **Verschaffel**: Remarks on the communication of A. Claude and L. Driencourt concerning a new impersonal coincidence micrometer.—A. **Guntz** and A. A. **Guntz, Jr.**: The hydrates of silver fluoride. Details of the conditions necessary for the isolation of the three hydrates, $AgF,4H_2O$, $AgF,2H_2O$, and AgF,H_2O.—A. **Calmette** and V. **Grysez**: Experimental demonstration of the existence of a generalised lymphatic stage, preceding localisations, in tuberculous infections. It is shown that no local lesion is produced at the point of penetration of the bacillus.—Michel **Petrovitch**: The minimum modulus of an analytical function along a circumference.—G. **Kœnigs**: Doubly decomposable movements and surfaces which are the seat of two families of equal curves.—R. **Fortrat**: Groups of real and apparent lines in band spectra.—L. **Margaillan**: The neutralisation of chromic acid. The neutralisation of chromic acid has been studied by means of the hydrogen electrode. The curve of electromotive force shows two points of inflection corresponding to the change of colour of methyl orange and phenolphthalein respectively.—Lucien **Daniel**: A new graft hybrid.—Robert **Douin**: The arrangements for the absorption of water in the female capitule and male disc of the Marchantiaceæ.—A. **Guilliermond**: New cytological researches on the formation of anthocyanic pigments. These pigments and the colourless phenolic compounds are always the product of the activity of the mitochondria.—Raoul **Combes**: The experimental production of an anthocyanine identical with that formed in red leaves in autumn, starting with a compound extracted from green leaves. The red compound was shown to be identical with the colouring matter extracted from red leaves. Contrary to the views currently held, it is a reduction, and not an oxidation product.—P. **Nottin**: The influence of mercury on alcoholic fermentation.—F. **Bordas**: The transmission of typhoid fever by the air. Remarks confirming the conclusions drawn in a recent paper by A. Trillat and M. Fouassier.—Ch. **Nicolle** and L. **Blaizot**: Stable and atoxic antigonococcus vaccines.—MM. **Variot** and **Lavialle**: The effects of sweetened milk in the treatment of dyspeptics with gastric intolerance. The special eupeptic properties of sweetened milk appear to be entirely due to the high proportion of cane sugar.—J. **Bergonié**: Posology in physiotherapy.—Ch. **Gravier**: Some results of the second French Antarctic Expedition: Alcyonaria.—R. **Anthony** and L. **Gain**: The development of pterylosis in the penguin.—M. **Fauré-Fremiet**: *Erythropsis agilis*.—J. **Wolff**: The influence of iron in the development of barley and the specific nature of its action. Neither nickel nor chromium can replace iron in the development of barley.—Em. **Bourquelot** and M. **Bridel**: The biochemical synthesis of the glucosides of polyvalent alcohols: the α-glucosides of glycerol and glycol.—Arthur L. **Day** and E. S. **Shepherd**: Conclusions to be drawn from the analysis of the gases from the crater of Kilauea. The gases are undergoing chemical interaction as they rise in the crater, with marked development of heat. Water vapour is present in large quantity, and chlorine in a negligible proportion only. The nitrogen collected contained no argon.—Remarks by A. **Lacroix** and A. **Gautier** on the preceding paper.—Ph. **Glangeaud**: The characteristics of the spring waters in the volcanic formations of Auvergne.—Ph. **Négris**: The discovery of the Eocene above the Cristallophyllian of the Cyclades and the genesis of the Cristallophyllian facies in Greece.—G. **Valsan**: The evolution of the Roumanian plain between the rivers Olt and Arges.

BOOKS RECEIVED.

Outlines of Chordate Development. By Prof. W. E. Kellicott. Pp. v+471. (New York: H. Holt and Co.) 2.50 dollars.

Das Mittelmeergebiet: seine Geographische und Kulturelle Eigenart. By A. Philippson. Dritte Auflage. Pp. x+256+15 plates. (Leipzig and Berlin: B. G. Teubner.) 6 marks.

The Indian Forest Memoirs. Economy Series. Vol. ii., part ii. On the Economic Value of *Shorea robusta* (Sal.). By R. S. Pearson. Pp. vi+70+viii plates. (Calcutta: Superintendent, Government Printing, India.) 3*s*.

Einführung in die Vererbungswissenschaft. By Prof. R. Goldschmidt. Zweite Auflage. Pp. xii+546. (Leipzig and Berlin: W. Engelmann.) 13 marks.

The Scientists' Reference Book and Diary, 1914. (Manchester: J. Woolley, Sons and Co., Ltd.) 2*s*.

Practical Cinematography and its Applications. By F. A. Talbot. Pp. xii+262+plates. (London: W. Heinemann.) 3*s*. 6*d*. net.

The Diseases of Tropical Plants. By Prof. M. T. Cook. Pp. xi+317. (London: Macmillan and Co., Ltd.) 8*s*. 6*d*. net.

Alternating Currents and Alternating Current Machinery. By Prof. D. C. Jackson and Dr. J. P. Jackson. New edition. Pp. viii+968. (London: Macmillan and Co., Ltd.) 23*s*. net.

Visvakarma: Examples of Indian Architecture, Sculpture, Painting, Handicraft. Chosen by Dr. A. K. Coomaraswamy. Part vi., 12 plates. (London: Luzac and Co.) 2*s*. 6*d*.

Influenza: Its History, Nature, Cause, and Treatment. By Dr. A. F. Hopkirk. Pp. xix+209. (London and Felling-on-Tyne: The Walter Scott Publishing Co., Ltd.) 3*s*. 6*d*.

Modern Rationalism as Seen at Work in its Biographies. By Canon H. Lewis. Pp. ix+418. (London: S.P.C.K.) 4*s*. net.

Butterflies and Moths in Romance and Reality. By W. F. Kirby. Pp. 178+28 plates. (London: S.P.C.K.) 5*s*. net.

Canada. Department of Mines. Geological Survey Branch. Memoir No. 37. Portions of Atlin District, British Columbia, with Special Reference to Lode Mining. By D. D. Cairnes. Pp. ix+129+xxxii plates. (Ottawa: Government Printing Bureau.)

Handbuch der Hygiene. Edited by Profs. M. Rubner, M. v. Gruber, and M. Ficker. III. Band, 3 Abteilung. Die Infektionskrankheiten. Pp. iv+392+xxxii plates. (Leipzig: S. Hirzel.) 24 marks.

Die Anatomie des Menschen. Teil. v. Nervensystem und Sinnesorgane. By Prof. K. von Bardeleben. Pp. 82. (Leipzig and Berlin: B. G. Teubner.) 1.25 marks.

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The Year-Book of the Scientific and Learned Societies of Great Britain and Ireland, 1913. Pp. vi+380. (London: C. Griffin and Co., Ltd.) 7*s.* 6*d.*

Yorkshire Type Ammonites. Edited by S. S. Buckman. Part xi. (London: W. Wesley and Son.) 3*s.* 6*d.* net.

"Squaring the Circle": a History of the Problem. By Prof. E. W. Hobson. Pp. 57. (Cambridge University Press.) 3*s.* net.

Educational School Gardening and Handwork. By G. W. S. Brewer. Pp. xi+192. (Cambridge University Press.) 2*s.* 6*d.* net.

Les Problèmes de la Sexualité. By Prof. M. Caullery. Pp. 332. (Paris: E. Flammarion.) 3.50 francs.

Soils and Crops, with Soils Treated in Reference to Crop Production. By Profs. T. F. Hunt and C. W. Burkett. Pp. xiii+541. (New York: Orange Judd Company; London: Kegan Paul and Co., Ltd.)

Department of Commerce. Technologic Papers of the Bureau of Standards. No. 16, Manufacture of Lime. By W. E. Emley. Pp. 130+plates. (Washington: Government Printing Office.)

Survey of India. Professional Paper No. 14, Formulæ for Atmospheric Refraction and their Application to Terrestrial Refraction and Geodesy. By J. de G. Hunter. Pp. v+114. (Dehra Dun: Office of the Trigonometrical Survey.)

Mitteilungen der Prähistorischen Kommission der K. Akademie der Wissenschaften. II. Band., No. 2, 1912. Pp. 127–227. (Vienna: A. Hölder.)

City and Guilds of London Institute. Department of Technology, Exhibition Road, London, S.W. Report of the Department for the Session 1912–13. Pp. x+467. (London: J. Murray.)

DIARY OF SOCIETIES.

THURSDAY, DECEMBER 4.

ROYAL SOCIETY, at 4.30.—(1) A Method of Studying Transpiration; (2) The Effect of Light on the Transpiration of Leaves: Sir Francis Darwin.—Dimensions of Chromosomes considered in Relation to Phylogeny: Prof. J. B. Farmer and L. Digby.—The Process of Calcification in Enamel and Dentine: J. H. Mummery.—The Optimum Temperature of Salicin Hydrolysis by Enzyme Action is Independent of the Concentrations of Substrate and Enzyme: A. Compton.—The Ratio between Spindle Lengths in the Spermatocyte Metaphases of Helix Pomatia: C. F. U. Meek.—Egyptian Blue: Dr. A. P. Laurie, W. F. P. McLintock and F. D. Miles.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Electricity Supply in Large Cities: Dr. G. Klingenberg.

LINNEAN SOCIETY, at 8.—Wild Wheat from Mount Hermon, *Triticum dicoccoides* Koern: Prof. J. Percival.—Neurotes, a New Genus of Mymaridæ, from Hastings: F. Enock.—A Contribution to the Study of the Evolution of the Flower; with Special Reference to the Hamamelidaceæ, Caprifoliaceæ and Cornaceæ: A. S. Horne.—The Mollusca of the River Nile: Mrs. Longstaff.

FRIDAY, DECEMBER 5.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Thomas Hawksley Lecture: Water as a Mechanical Agent: E. B. Ellington.

JUNIOR INSTITUTION OF ENGINEERS, at 8.—Presidential Address: Sir Boverton Redwood, Bart.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Liverpool Street Extension of the Central London Railway: H. V. Hutt.

GEOLOGISTS' ASSOCIATION, at 8.—Evolution and Palæobotany: Dr. Marie C. Stopes.

MONDAY, DECEMBER 8.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—Is the Earth Drying Up?: Prof. J. W. Gregory.

ROYAL SOCIETY OF ARTS, at 8.—The Measurement of Stresses in Materials and Structures: Prof. E. G. Coker.

TUESDAY, DECEMBER 9.

INSTITUTION OF CIVIL ENGINEERS, at 8.—*Further Discussion:* The Transandine Railway: B. H. Henderson.—*Probable Paper:* Cyclical Changes of Temperature in a Gas-engine Cylinder: Prof. E. G. Coker and W. A. Scoble.

WEDNESDAY, DECEMBER 10.

ROYAL SOCIETY OF ARTS, at 8.—The application of Electricity to Agriculture and Life: T. Thorne Baker.

THURSDAY, DECEMBER 11.

ROYAL SOCIETY, at 4.30.—*Probable Papers:* Intermittent Vision: A. Mallock.—The Relations between the Crystal-symmetry of the Simpler Organic Compounds and their Molecular Constitution. III.: W. Wahl.—The Selective Absorption of Ketones: Prof. G. G. Henderson and J. M. Heilbron.—Absolute Measurements of a Resistance by a Method based on that of Lorenz: F. E. Smith.—A Determination of the Electromotive Force of the Weston Normal Cell in Semi-absolute Volts. (With a Preface by Prof. H. L. Callender, F.R.S.): A. N. Shaw.—Elastic Hysteresis in Steel: F. E. Rowett.—A Simple Form of Micro-balance for Determining the Densities of Small Quantities of Gases: F. W. Aston.—A Second Spectrum of Neon: T. R. Merton.

MATHEMATICAL SOCIETY, at 5.30.—The Linear Integral Equation: Prof. E. W. Holson.—Generalised Hermite Functions and their Connection with the Bessel Functions: H. E. J. Curzon.—Limiting Forms of Long Period Tides: J. Proudman.—The Number of Primes of Same Residuacity: Lieut.-Col. Cunningham.—Some Results on the Form Near Infinity of Real Continuous Solutions of a Certain Type of Second Order Differential Equations: R. H. Fowler.—The Potential of a Homogeneous Convex Body and the Direct Integration of the Potential of an Ellipsoid: S. Brodetsky.—The Dynamical Theory of the Tides in a Polar Basin: G. R. Goddsbrough.—Proof of the Complementary Theorem: Prof. J. C. Fields.

CONCRETE INSTITUTE, at 7.30.—Some Fallacies in Testing Cement: L. Gadd.

ROYAL SOCIETY OF ARTS, at 4.30.—The Cultivation and Manufacture of Indian Indigo: Prof. W. P. Bloxam.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Continuation of Discussion on Dr. Klingenberg's Address on "Electricity Supply in Large Cities."

FRIDAY, DECEMBER 12.

ROYAL ASTRONOMICAL SOCIETY, at 5.—

MALACOLOGICAL SOCIETY, at 8.—Descriptions of Various New Species of Mollusca: G. B. Sowerby.—Synonymy of the Family Veneridæ: A. J. Jukes-Browne, F.R.S.—Descriptions of New Species of Land and Marine Shells from the Montebello Islands, Western Australia: H. B. Preston.

ALCHEMICAL SOCIETY, at 8.15.—Alchemy in China: Prof. H. Chatley.

CONTENTS.

PAGE
Antarctic Meteorology. By **Prof. W. Meinardus** . . 393
The Group-Origin of Species. By **R. R. G.** 395
The New Psychology. By **A. E. Crawley** 396
Popular Botanical Publications. By **F. C.** 397
Our Bookshelf 398

Letters to the Editor:—

Synthesis by Means of Ferments.—**Sir Lauder Brunton, Bart., F.R.S.** 399
Amœbocytes in Calcareous Sponges.—**Prof. Arthur Dendy, F.R.S.** 399
Intra-atomic Charge.—**Frederick Soddy, F.R.S.** . 399
Philosophy of Vitalism.—**Prof. Hans Driesch; Prof. E. W. MacBride, F.R.S.** 400
The Kathode Spectrum of Helium.—**Prof. P. G. Nutting** 401
Observation of the Separation of Spectral Lines by an Electric Field.—**Prof. J. Stark** 401
Phosphorescence of Mercury Vapour.—**F. S. Phillips** 401
A Remarkable Meteor on November 24.—**J. S. Dines; Dr. Arthur A. Rambaut, F.R.S.** . . . 402
The British Radium Standard. By **Prof. E. Rutherford, F.R.S.** 402
Sir Robert Ball, F.R.S. By **J. L. E. D.** 403
The Anniversary Meeting of the Royal Society . . 404
Notes 406

Our Astronomical Column:—

The Radial Velocity of the Andromeda Nebula . . . 411
Photographic Magnitudes of Comparison Stars in Certain of the Hagen Fields 411
The Harmonic Analyser Applied to the Sun-spot Cycle 411
R.Z. Cassiopeiæ 411
The Nantucket Observatory 411
Convergence in the Mammalia. By **J. H. A.** . . . 411
Anthropology at the British Association 412
Ocean Temperatures Near Icebergs 414
University and Educational Intelligence 414
Societies and Academies 416
Books Received 417
Diary of Societies 418

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